

# DEPARTMENT OF COMMERCE **Patent and Trademark Office**

Address: COMMISSIONER OF PATENTS AND TRADEMARKS Washington, D.C. 20231

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR		TA	TORNEY DOCKET NO.
9/448,856	11/23/99	LOTFI		A LO	TFI-22-2
_		MMC4 70C4 4	7	EXAMINER	
HARLES W GA:	INES	MM91/0214		NADAV. n	
HITT CHWANG & GAINES P C				ART UNIT	PAPER NUMBER
75 WEST CAMF JITE 225 ICHARDSON T)				2811 DATE MAILED:	2/14/01

Please find below and/or attached an Office communication concerning this application or proceeding.

**Commissioner of Patents and Trademarks** 



Office Action Summary

Application No. 09/448,856 Applicant(s)

Lotfi et al.

Examiner

**ORI NADAV** 

Group Art Unit 2811



⊠ Responsive to communication(s) filed on <u>Jan 19, 2001</u>	<u> </u>					
☐ This action is <b>FINAL</b> .						
☐ Since this application is in condition for allowance except for fo in accordance with the practice under <i>Ex parte Quayle</i> , 1935 C						
A shortened statutory period for response to this action is set to exis longer, from the mailing date of this communication. Failure to rapplication to become abandoned. (35 U.S.C. § 133). Extensions 37 CFR 1.136(a).	espond within the period for response will cause the					
Disposition of Claims						
X Claim(s) 1-43	is/are pending in the application.					
Of the above, claim(s) 11-43	is/are withdrawn from consideration.					
☐ Claim(s)	is/are allowed.					
X Claim(s) 1-10	is/are rejected.					
Claim(s)	is/are objected to.					
☐ Claims are subject to restriction or election requirement.						
Application Papers						
☐ See the attached Notice of Draftsperson's Patent Drawing R	eview, PTO-948.					
☐ The drawing(s) filed on is/are objected	to by the Examiner.					
☐ The proposed drawing correction, filed on is ☐approved ☐disapproved.						
☐ The specification is objected to by the Examiner.						
$\square$ The oath or declaration is objected to by the Examiner.						
Priority under 35 U.S.C. § 119						
Acknowledgement is made of a claim for foreign priority und						
☐ All ☐ Some* ☐ None of the CERTIFIED copies of th	e priority documents have been					
received.						
received in Application No. (Series Code/Serial Number)						
received in this national stage application from the Interest of the Interest	ernational Bureau (PCT Rule 17.2(a)).					
*Certified copies not received:  Acknowledgement is made of a claim for domestic priority u	inder 35 II S C § 119(e)					
	11061 33 0.3.6. 3 113(6).					
Attachment(s)						
<ul><li>☒ Notice of References Cited, PTO-892</li><li>☐ Information Disclosure Statement(s), PTO-1449, Paper No(s)</li></ul>						
☐ Interview Summary, PTO-413	·					
☐ Notice of Draftsperson's Patent Drawing Review, PTO-948						
☐ Notice of Informal Patent Application, PTO-152						
SEE OFFICE ACTION ON THE	FOLLOWING PAGES					

#### **DETAILED ACTION**

Page 2

#### Election/Restriction

1. Applicant's election without traverse of claims 1-10 in Paper No. 4 is acknowledged.

### Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

- (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.
- 3. Claims 1-2 and 4-9 are rejected under 35 U.S.C. 102(b) as being anticipated by Takasu (5,326,991).

Takasu teaches in figure 7 a lateral MOSFET comprising a 3C (column 3, line 67) SiC layer 22 (column 4, lines 54-55) located over a buried oxide layer 20 in a silicon substrate, a gate 32 formed on the SiC layer and N type source and drain regions located in the SiC layer, within a P type tub, and laterally offset from the gate, wherein the breakdown voltage of SiC layer is greater than that of a silicon.

Application/Control Number: 09/448,856 Page 3

Art Unit: 2811

## Claim Rejections - 35 USC § 103

- 4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:
  - (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.
- 5. Claims 1-2, 4-9 and 3, 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Takasu.

Takasu teaches substantially the entire claimed structure, as applied to claim 1 above, except using the MOSFET as a power switch employed in a power train of a power converter.

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to use the MOSFET structure of Takasu as a power switch employed in a power train of a power converter in order to the device to a particular application. Furthermore, a recitation of the intended use of the claimed invention must result in a structural difference between the claimed invention and the prior art in order to patentably distinguish the claimed invention from the prior art. If the prior art structure is capable of performing the intended use, then it meets the claim. See *In re Casey*, 152 USPQ 235 (CCPA 1967) and *In re Otto*, 136 USPQ 458, 459 (CCPA 1963).

Application/Control Number: 09/448,856

Art Unit: 2811

Regarding claim 3, it is known in the art that a SiC layer has a breakdown voltage of 10 volts, of which judicial notice may be taken.

Papers related to this application may be submitted to Technology center (TC) 2800 by facsimile transmission. Papers should be faxed to TC 2800 via the TC 2800 Fax center located in Crystal Plaza 4, room 4-C23. The faxing of such papers must conform with the notice published in the Official Gazette, 1096 OG 30 (November 15, 1989). The Group 2811 Fax Center number is (703) 308-7722 and 308-7724. The Group 2811 Fax Center is to be used only for papers related to Group 2811 applications.

Any inquiry concerning this communication or any earlier communication from the Examiner should be directed to *Examiner Nadav* whose telephone number is **(703) 308-8138**. The Examiner is in the Office generally between the hours of 7 AM to 3 PM (Eastern Standard Time) Monday through Friday. If attempts to reach the examiner by

Art Unit: 2811

telephone are unsuccessful, the examiner's supervisor, Tom Thomas, can be reached at (703) 308-2772.

Any inquiry of a general nature or relating to the status of this application should be directed to the **Technology Center Receptionists** whose telephone number is **308-0956**.

Ori Nadav, Ph.D.

February 4, 2001

William Mintel

William Mintel Primary Examiner Art Unit 2811